

**TDSL Project Title: Electronic Waste Management**  
**Semester: 2nd**  
**Team members:**

- 1. Aditya Jain (193050028)**
- 2. Kartavya Kothari (193050021)**
- 3. Karthik Prakash (193050008)**

**Guide/coordinator:** Prof. Sudhanshu Mallick

**Visit Report for trip to Khairani Road, Saki Naka on 17 Feb 2020**

**Visit date:** 17 Feb 2020

**Location details:** Khairani Road, Saki Naka, Mumbai- 400072

**Participants:**

- 1. Aditya Jain (193050028)**
- 2. Kartavya Kothari (193050021)**
- 3. Karthik Prakash (193050008)**

**Agenda :**

- To understand the initial phase of the disposal cycle of Electronic waste. ( from Bhangarwalas to recycling mines)

**Trip proceedings:**

- **Left campus at 5:15 PM**, took an auto rickshaw to Kanjur marg, took local train to reach Ghatkopar, took Metro train to Saki Naka.
- **Reached site at 6:45 PM.**
- Visited locations near Hari Masjid and Raahat restaurant.

**Key Findings:**

- **Disposal of Electric wires:**
  - When we visited the recycling site, we saw a separate area where the disposal of electric wires was being carried out.
  - The wires were separated into two categories:
    - Completely damaged wires
    - Wires with only damaged external coating
  - The completely damaged wires were directly put into the recycling process (melting and then remaking) by first separating out the plastic coating from the copper coil.
  - The wires with only damaged external coating but useable copper coil were first worked on manually by separating out plastic coating from the

copper coil and then rolling down the coil with a new plastic coating. (we were not allowed to take any sort of image or video at this site)

- **Disposal of Aluminium chips:**

- This process undergoes with the help of huge machines and mining it at a very high temperature.
- The Aluminium remains, that are collected from various Bhangarwalas, are first given as input to a Mine (Bhatti) which is operated at a temperature high enough to melt down the Aluminium to a uniform paste.
- This paste is then used to manufacture various useful products such as: Aluminium utensils, wires, rods, coils, etc.

- **Disposal of Plastic (used for insulated coating)**

- The recycling of plastic on the other hand depends on the type of plastic. For example PVC can't be processed the same way that soft plastic is processed.
- Different types of plastic are usually brought together, melted and mixed together. This mixture causes the recycled plastic to have different substances to be mixed into it.
- Plastic can not be recycled many times, as it loses quality every time. And after recycling it too many times it can become unusable.
- Other forms of recycling are present as well.

- **Disposal of Silicon**

**Tentative agenda for next trip:**

- To explore various start-ups and corporations that work in this domain.
- Examples: Eco-Reco, etc.

**Photos:**

1. At this site, the complete processing of Aluminum, from useless pieces to useful utensils, is carried out.





2. The mine (Bhatti) at which the process of melting down the material as well as making utensils is carried out



3. The area at which the complete recycling is carried out.





4. One of the shops at which the manufactured utensils and other Aluminium products are sold. This shop is in contract with the people at mine.



5. One of the machines used to carry out the process of crushing the waste material before turning it into paste.





6. The electronic wires are processed to separate out plastic coating from the copper coil. This copper is then used to manufacture new wires.

